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[Intervention Review]

Progestagens and anti-progestagens for pain associated with endometriosis

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ABSTRACT

Background

Endometriosis is a chronic inflammatory condition defined by the presence of glands and stroma outside the uterine cavity. It occurs in 7% to 10% of all women of reproductive age and may present as pain or infertility. The pelvic pain may be in the form of dysmenorrhoea, dyspareunia or pelvic pain. Initially a combination of estrogens and progestagens was used to create a pseudopregnancy and alleviate the symptoms associated with endometriosis. Progestagens alone or anti-progestagens have been considered as alternatives because they are inexpensive and may have a better side effect profile than other choices.

Objectives

To determine the effectiveness of both the progestagens and anti-progestagens in the treatment of painful symptoms ascribed to the diagnosis of endometriosis.

Search methods

We used the search strategy of the Menstrual Disorders and Subfertility Group to identify all publications which described or might have described randomised controlled trials (RCTs) of any progestagen or any anti-progestagen in the treatment of symptomatic endometriosis. We updated the review in 2011.

Selection criteria

We considered only RCTs which compared the use of progestagens and anti-progestagens with other interventions, placebo or no treatment for the alleviation of symptomatic endometriosis.

Data collection and analysis

We have added six new studies, bringing the total of included studies to 13 in the update of this review. The six newly included studies evaluated progestagens (comparisons with placebo, danazol, oral or subdermal contraceptive, oral contraceptive pill and danazol, gonadotrophin-releasing hormone (GnRH) analogue and other drugs). The remaining studies compared the anti-progestagen gestrinone with danazol, GnRH analogues or itself.

Main results

The progestagen medroxyprogesterone acetate (100 mg daily) appeared to be more effective at reducing all symptoms up to 12 months of follow-up (MD -0.70, 95% CI -8.61 to -5.39; $P < 0.00001$) compared with placebo. There was evidence of significantly more cases of acne

(six versus one) and oedema (11 versus one) in the medroxyprogesterone acetate group compared with placebo. There was no evidence of a difference in objective efficacy between dydrogesterone and placebo.

There was no evidence of a benefit with depot administration of progestagens versus other treatments (low dose oral contraceptive or leuprolide acetate) for reduced symptoms. The depot progestagen group experienced significantly more adverse effects.

There was no overall evidence of a benefit of oral progestagens over other medical treatment at six months of follow-up for self-reported efficacy. Amenorrhoea and bleeding were more frequently reported in the progestagen group compared with other treatment groups.

There was no evidence of a benefit of anti-progestagens (gestrinone) compared with danazol. GnRH analogue (leuprorelin) was found to significantly improve dysmenorrhoea compared with gestrinone (MD 0.82, 95% CI 0.15 to 1.49; $P = 0.02$) although it was also associated with increased hot flushes (OR 0.20, 95% CI 0.06 to -0.63; $P = 0.006$).

Authors' conclusions

There is only limited evidence to support the use of progestagens and anti-progestagens for pain associated with endometriosis.

PLAIN LANGUAGE SUMMARY

Progestagens and anti-progestagens for pain associated with endometriosis

Endometriosis is a painful condition where tissue from the lining of the womb (uterus) is found outside the uterus as well. It can cause pain in the abdomen, generally and during periods (menstruation) or sex. Endometriosis can also lead to infertility. Treatments include surgery or drugs to try and shrink the tissue. Progestagens and anti-progestagens are some of the hormonal drugs used for treatment. This systematic review of trials found limited evidence for the effectiveness of these drugs in the reduction of pain from endometriosis. This was due to the limited number of randomised controlled trials comparing each drug.